

THE IMPACT OF TECHNOSTRESS ON EFL TEACHERS: A STUDY OF FACTORS, EFFECTS, AND COPING STRATEGIES

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Abstract: This research study aimed to investigate the impact of technostress on English as a Foreign Language (EFL) teachers which specifically focused on the factors that contribute to technostress, the effects on teacher well-being and classroom practice, and the coping strategies employed by EFL teachers, as well as knowing those variables' relationships. Hence, it applied a mixed-methods approach by collecting quantitative through an online survey and qualitative data by doing interviews. The participants were 34 Indonesia EFL teachers who ranged in various educational levels. The survey and interview collected demographic information and questions correlated to this research variable. The findings explained that the lack of a technology-based TPD program and the rapid development of technology increased EFL teachers' anxiety and severely impacted their teaching performance. Nonetheless, the EFL teachers' drive to discover solutions led them to employ all coping mechanisms that may have assisted them in reducing technostress. Then, the positive correlations did not appear in all these research variables since the coping strategies showed no correlations to the technostress triggering factors and effects. This study is significant because it acknowledges the increasing use of technology in EFL teaching and the potential negative impact of technostress on teacher well-being and classroom practice.

Keywords: Coping strategy, EFL teachers, technostress factors, technostress effect, technology

INTRODUCTION

In recent years, technology's impact on education, particularly in English as a Foreign Language (EFL) teaching, has been significant (Wolff, 2021). The integration of digital tools, online platforms, and multimedia resources has transformed EFL classrooms (Huang, 2022). Innovations like mobile apps, language learning software, virtual reality, and artificial intelligence have revolutionized EFL instruction, offering interactive and personalized learning experiences (Haleem, Javaid, Qadri, et al., 2022).

Technology has also reshaped EFL teaching methodologies, providing access to authentic language materials, facilitating real-time communication and collaboration, and enhancing language skill development through gamification and interactive multimedia (Shadiev & Wang, 2022). Additionally, language learning apps and online platforms enable learners to practice at their own pace (Haleem, Javaid, Qadri, et al., 2022), while technology-supported assessment tools enable more accurate evaluation of students' language proficiency, aiding tailored instruction (Muslimin et al., 2023).

Despite these benefits, technology presents challenges for EFL educators, including technostress – the psychological strain of technology integration (Nang et al., 2022). Insufficient training, information overload, and the fear of technology replacing traditional methods contribute to technostress among EFL teachers (Khlaif et al., 2022).

Technostress can significantly impact EFL teachers' practices and well-being (Jameel Abo Mokh et al., 2021), leading to decreased confidence and job dissatisfaction (Khlaif et al., 2022; Muslimin et al., 2023; Nang et al., 2022). Coping strategies adopted by EFL teachers include seeking professional development, forming support networks, engaging in self-care, and adopting a growth mindset towards technology (Schmidt et al., 2021).

This study's uniqueness lies in its comprehensive investigation of technostress factors, effects, and coping strategies for EFL teachers (Khlaif et al., 2022). It extends previous research by exploring coping strategies specifically used by EFL teachers to manage technostress (Efiliti & Çoklar, 2019). The study provides valuable insights and practical guidance to address the challenges of technology integration in EFL teaching. To achieve this, the research aims to answer three key questions:

1. What factors trigger technostress among EFL teachers?
2. How does technostress affect the performance of EFL teachers?
3. What coping strategies do EFL teachers employ to manage technostress?

METHODOLOGY

Design and Participants

This study utilized a mixed-methods research design to gain a comprehensive understanding of how technostress affects EFL teachers (Schoonenboom & Johnson, 2017). The qualitative part involved in-depth interviews, while the quantitative part used surveys. This approach ensures data triangulation, improving the study's credibility and dependability. The research involved 34 EFL teachers from various educational institutions in Indonesia, and their demographic information is presented in Table 1.

Table 1. The Participants Demographic

Teaching Level	Teaching Experience	Education Level	Total of Participants
University	More than 11 years	Master	5
	8-11 years	Master	6
	4-7 years	Master	3
	0-3 years	Master	4
Senior High School	8-11 years	Master and Bachelor	6
	4-7 years	Master and Bachelor	3
Junior High School	8-11 years	Master and Bachelor	4
	4-7 years	Master and Bachelor	1
	0-3 years	Master and Bachelor	2
Total			34

Data Collection

This study collected both quantitative and qualitative data. The quantitative data were gathered through a technostress questionnaire based on findings from previous studies (Efiliti & Çoklar, 2019; Khlaif et al., 2022; Schmidt et al., 2021). The questionnaire assessed participants' experiences of technostress factors (6 items), its effects on well-being and teaching performance (6 items), and coping strategies (6 items). A Likert scale (1=strongly disagree - 5=strongly agree) and multiple-choice questions efficiently gathered the quantitative data. In addition to the quantitative data, semi-structured interviews were conducted with three willing participants to gain a deeper understanding of the findings. The interviews allowed participants to elaborate on technostress triggers, its impact, and coping strategies (Daniel, 2016).

Data Analysis

The data analysis involved two approaches based on the data types. For the quantitative data, appropriate statistical techniques were applied using SPSS version 23. For the qualitative data obtained from interviews, thematic analysis was conducted. The transcripts were carefully read and coded to identify recurring themes and patterns related to technostress factors, effects, and coping strategies. These codes were then organized into categories, and overarching themes were developed to gain a comprehensive understanding of the qualitative data.

FINDINGS

The technostress triggering factors

The first research objective was to know the factors that trigger EFL teachers' technostress. After the technostress questionnaire's administration, the survey results are depicted in Figure 1.

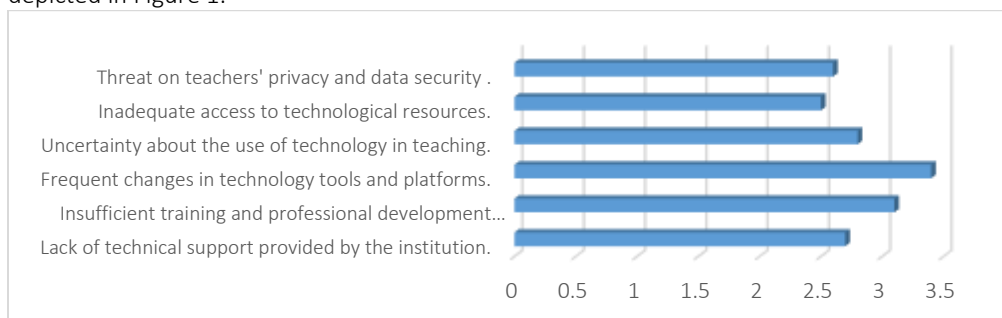


Figure 1. The technostress triggering factors

Figure 1 describes the factors that trigger EFL teachers to experience technostress. The data showed that most participants agreed 'Frequent changes in technology tools and platforms' (3.4 average points) and 'Insufficient training and professional development on technology use' (3.1 average points) factors were crucial to trigger their technostress. The three participants' responses in the interview supported these quantitative data findings.

Research Participant 1:

The factors that trigger my technostress include the constant pressure to learn and adapt to new technologies. The expectation to effectively integrate technology into my teaching practices without proper training adds to my technostress levels.

Research Participant 2:

The main factors that trigger my technostress are the lack of adequate training in using technology, especially for specific teaching tasks, such as online assessments or virtual collaboration. The fast-paced nature of technological advancements and the pressure to keep up with them also contribute to my technostress.

Research Participant 3:

Several factors contribute to my technostress as an EFL teacher. Firstly, the complexity and constant updates of various digital tools and applications are significant triggers. Secondly, the expectation to integrate technology seamlessly into my teaching, despite limited time and resources, adds to my technostress. Lastly, the lack of technical support and training opportunities exacerbates my technostress, as it makes it difficult to effectively use technology in my teaching practice.

The participants' responses in the interview, again, emphasized that the 'Frequent changes in technology tools and platforms' and 'Insufficient training and professional

development on technology use' became the most influential factor in triggering EFL teachers' technostress.

The effects of technostress on EFL teachers' performance

The second objective was to know the effect of the technostress on the EFL teachers' performance, i.e., their teaching performance and well-being. The results of the questionnaire administration are seen in Figure 2.



Figure 2. The effects of technostress on EFL teachers' performance

Figure 2 unveils the truth that technostress could leverage the participants' anxiety or stress level (3.5 average points) and negatively affect their teaching performance (3.3 average points). In addition, to check this quantitative data, the interview results obtained are presented as follows:

Research Participant 1:

The effects of technostress on my performance as an EFL teacher are noticeable. It often leads to increased anxiety and frustration when dealing with technology-related tasks, which can negatively impact my ability to deliver lessons and engage with students effectively.

Research Participant 2:

Technostress has several effects on my performance as an EFL teacher. It hampers my productivity by causing delays in completing tasks that involve technology. It also affects my concentration and focus, decreasing lesson planning and instructional delivery efficiency. Moreover, technostress can contribute to feelings of burnout and teaching dissatisfaction.

Research Participant 3:

The effects of technostress on my performance are pretty significant. It often leads to increased errors or mistakes in utilizing technology, affecting the quality of my teaching materials or web-based interactions with students. Technostress also harms my confidence to innovate with technology, as it hinders my ability to explore new digital tools or teaching approaches.

The participants' responses in the interview support the common effects of technostress on EFL teaching performance.

The EFL teachers' technostress coping strategies

The third research objective was to know the EFL teachers' strategies to cope with their technostress. The participants recalled their experience of reducing their technostress and reflected on it by choosing the most suitable choices in the online survey. Then the results of the survey are presented in Figure 3.

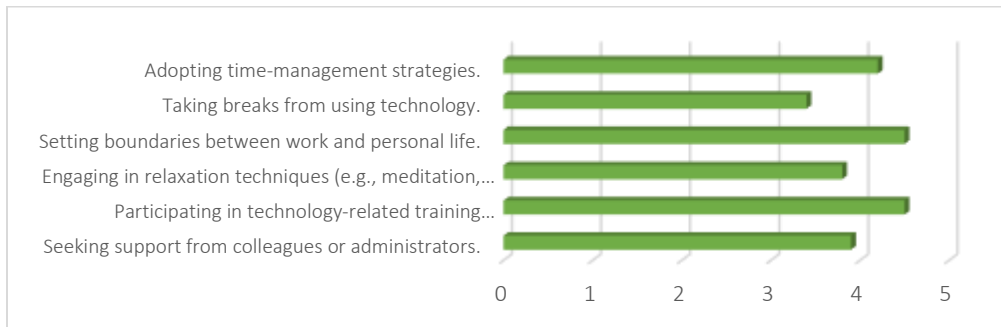


Figure 3. The EFL teachers' technostress coping strategies

Figure 3 shows that the participants chose all stated strategies in the online survey to cope with their technostress. All items' average scores were above 2.5 ('neutral' Likert-scale category). However, most participants strongly agreed that 'Participating in technology-related training programs or workshops' and 'Setting boundaries between work and personal life' were the best coping strategies for their technostress.

Moreover, the three participants' responses in the interview were in line with the whole participants' quantitative responses in the questionnaire, with the transcription as follows:

Research Participant 1:

To cope with technostress, I prioritize self-care and work-life balance. Setting boundaries for technology use outside of work and engaging in relaxation activities helps me recharge. Seeking professional development opportunities boosts my confidence, and connecting with colleagues in online communities provides support.

Research Participant 2:

I manage technostress through time management, mindfulness, and seeking support from colleagues. Participating in training programs enhances my competence. Breaking down tasks and using problem-solving approaches helps me handle technostress effectively.

Research Participant 3:

I cope with technostress by exercising, practicing stress-reducing activities, and setting technology boundaries. Seeking peer support and joining professional networks offer valuable advice. Continuous skill development through online courses empowers me to handle technology challenges.

DISCUSSION

Technology integration has significantly impacted English as a Foreign Language (EFL) teaching, offering great opportunities for progress (Haleem, Javaid, Qadri, et al., 2022; Huang, 2022). However, alongside these benefits, technology has also introduced new challenges, including technostress, for EFL teachers (Nang et al., 2022). This study seeks to explore the factors contributing to technostress among EFL teachers, examine its effects on their well-being and job performance, and discuss coping strategies to mitigate its negative impact.

The research findings identified 'Frequent changes in technology tools and platforms' and 'Insufficient training and professional development on technology use' as the most influential factors triggering technostress in EFL teachers. Other factors did not significantly contribute to technostress, partially correlating with previous studies (Efilti & Çoklar, 2019; Jameel Abo Mokh et al., 2021; Khlaif et al., 2022; Nang et al., 2022; Schmidt et al., 2021). While technology complexity and lack of training were emphasized in prior research (Khlaif et al., 2022; Schmidt et al., 2021), 'Inadequate access to technological resources' was not a prominent

factor in this study, as institutions provided sufficient technology resources during the Covid-19 pandemic (Haleem, Javaid, Asim, et al., 2022). Additionally, social interaction, a factor raised in other studies, did not align with the present findings (Efilti & Çoklar, 2019).

Participants reported that experiencing technostress significantly impacted their teaching performance, leading to higher anxiety and reduced effectiveness in utilizing innovative technology (Henderson & Corry, 2021). This affected various aspects of their teaching, including lesson preparation, in-class performance, and practical technology-based teaching evaluation (Muslimin et al., 2023). Similar to previous research, technostress negatively affected EFL teachers' job performance and worsened their physical condition during working hours (Khlaif et al., 2022; Muslimin et al., 2023; Nang et al., 2022). Mitigating technostress is crucial to enhancing EFL teachers' professionalism and teaching outcomes (Muslimin et al., 2023).

To cope with technostress, participants employed strategies to develop self-efficacy (Schmidt et al., 2021; Sriwidharmanely et al., 2022). These strategies included seeking support from colleagues or administrators, participating in technology-related training programs or workshops, engaging in relaxation techniques like meditation, setting work-life boundaries, taking technology breaks, and adopting time-management strategies. Joining Teachers' Professional Development (TPD) programs related to technology was particularly beneficial in integrating technology effectively (Muslimin et al., 2023). Some participants pursued self-directed progression, further enhancing their professionalism. Setting boundaries reduced anxiety and physical pains, preparing them to deliver better teaching performance (Sriwidharmanely et al., 2022). EFL teachers' adaptive skills in dealing with challenges play a vital role in achieving desirable teaching outcomes (Dong & Xu, 2022). Further research is needed to address distinct findings mentioned earlier.

CONCLUSION

The current study explored technostress triggers, effects, and coping strategies among EFL teachers. The absence of a technology-based teacher professional development program and rapid technology advancements led to anxiety and negatively impacted their teaching performance. However, the teachers' proactive approach in finding solutions resulted in the application of coping strategies, which helped reduce technostress. The study has both theoretical and practical implications. Theoretically, it advances the understanding of technostress in the EFL setting, informing policymakers on effective policies to enhance EFL teaching outcomes. Practically, readers can adopt successful coping strategies to minimize technostress, replicate similar research procedures and topics, and establish collaborative networks to promote EFL teachers' tech-savviness. Further investigations in different settings with more participants can address potential research limitations.

REFERENCES

- Dong, Y., & Xu, J. (2022). The Role of EFL Teachers' Optimism and Commitment in Their Work Engagement: A Theoretical Review. *Frontiers in Psychology*, 12(February), 1–5. <https://doi.org/10.3389/fpsyg.2021.830402>
- Efilti, E., & Çoklar, A. N. (2019). *Teachers' Technostress Levels as an Indicator of Their Psychological Capital Levels*. 7(2), 413–421. <https://doi.org/10.13189/ujer.2019.070214>
- Haleem, A., Javaid, M., Asim, M., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3(February), 275–285. <https://doi.org/10.1016/j.susoc.2022.05.004>

- Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3(May), 275–285. <https://doi.org/10.1016/j.susoc.2022.05.004>
- Henderson, J., & Corry, M. (2021). Teacher anxiety and technology change: a review of the literature. *Technology, Pedagogy and Education*, 30(4), 573–587. <https://doi.org/10.1080/1475939X.2021.1931426>
- Huang, J. (2022). *The Role of English as a Foreign Language Teachers ' Mindfulness and Compassion in Fostering Students ' Foreign Language Enjoyment*. 13(May). <https://doi.org/10.3389/fpsyg.2022.899298>
- Jameel Abo Mokh, A., Jameel Shayeb, S., Badah, A., Asim Ismail, I., Ahmed, Y., K. A. Dawoud, L., & Essam Ayoub, H. (2021). Levels of Technostress Resulting from Online Learning among Language Teachers in Palestine during Covid-19 Pandemic. *American Journal of Educational Research*, 9(5), 243–254. <https://doi.org/10.12691/education-9-5-1>
- Khlaif, Z. N., Sanmugam, M., Joma, A. I., Odeh, A., & Barham, K. (2022). Factors Influencing Teacher's Technostress Experienced in Using Emerging Technology: A Qualitative Study. In *Technology, Knowledge and Learning* (Vol. 28, Issue 2). Springer Netherlands. <https://doi.org/10.1007/s10758-022-09607-9>
- Muslimin, A. I., Mukminatien, N., & Ivone, F. M. (2023). TPACK-SAMR digital literacy competence, technostress, and teaching performance: Correlational study among EFL lecturers. *Contemporary Educational Technology*, 15(2), ep409. <https://doi.org/10.30935/cedtech/12921>
- Nang, A. F. M., Maat, S. M., & Mahmud, M. S. (2022). Teacher Technostress and Coping Mechanisms During COVID-19 Pandemic: A Systematic Review. *Pegem Egitim ve Ogretim Dergisi*, 12(2), 200–212. <https://doi.org/10.47750/pegegog.12.02.20>
- Schmidt, M., Frank, L., & Gimpel, H. (2021). How Adolescents Cope with Technostress : A Mixed-Methods Approach How Adolescents Cope with Technostress : A Mixed-Methods Approach. *International Journal of Electronic Commerce*, 25(2), 154–180. <https://doi.org/10.1080/10864415.2021.1887696>
- Sriwidharmanelly, S., Sumiyana, S., Mustakini, J. H., & Nahartyo, E. (2022). Encouraging positive emotions to cope with technostress's adverse effects: insights into the broaden-and-build theory. *Behaviour and Information Technology*, 41(10), 2187–2200. <https://doi.org/10.1080/0144929X.2021.1955008>